

The listing of claims will replace all prior versions, and listings, of claims in the application. Please amend claims 109 and 123 as follows. Please cancel claims 126-143 without prejudice.

Claims 1-80 (Cancelled).

Claim 81 (Previously presented): A soluble T cell receptor fusion molecule comprising a T cell receptor and a biologically active polypeptide connected by a peptide linker, wherein the T cell receptor has one recognition binding site and the biologically active polypeptide has a different recognition binding site.

Claim 82 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the T cell receptor is specific for recognition of a particular antigen.

Claim 83 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the T cell receptor is a heterodimer comprising α and β chain TCR.

Claim 84 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the T cell receptor α and β chains are linked through a non-covalent linkage.

Claim 85 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the T cell receptor comprises a single chain T cell receptor polypeptide.

Claim 86 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide is specific for recognition of an effector cell.

Claim 87 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises an immunoglobulin domain or fragment thereof.

Claim 88 (Previously presented): The soluble T cell receptor fusion molecule of claim 87 wherein the soluble T cell fusion molecule comprises a first kappa constant light chain immunoglobulin domain or fragment thereof.

Claim 89 (Previously presented): The soluble T cell receptor fusion molecule of claim 88, wherein the soluble T cell fusion molecule further comprises a first immunoglobulin heavy chain constant domain or fragment thereof covalently linked to the molecule.

Claim 90 (Previously presented): The soluble T cell receptor fusion molecule of claim 89, wherein the soluble T cell receptor fusion molecule further comprises a second immunoglobulin heavy chain constant domain or fragment covalently linked to the first immunoglobulin heavy chain constant domain or fragment.

Claim 91 (Previously presented): The soluble T cell receptor fusion molecule of claim 90, wherein the soluble T cell receptor fusion molecule further comprises a second kappa light constant immunoglobulin chain domain or fragment thereof.

Claim 92 (Previously presented): The soluble T cell receptor fusion molecule of claim 87, wherein the soluble T cell receptor molecule comprises a first immunoglobulin heavy chain constant domain or fragment thereof covalently linked to the molecule.

Claim 93 (Previously presented): The soluble T cell receptor fusion molecule of claim 92, wherein the biologically active polypeptide comprises a first kappa light chain constant immunoglobulin domain or fragment thereof.

Claim 94 (Previously presented): The soluble T cell receptor fusion molecule of claim 93, wherein the molecule further comprises a second immunoglobulin heavy chain constant domain or fragment covalently linked to the first immunoglobulin heavy chain constant domain or fragment.

Claim 95 (Previously presented): The soluble T cell receptor fusion molecule of claim 94, wherein the molecule further comprises a second kappa light constant chain immunoglobulin domain or fragment thereof.

Claim 96 (Previously presented): A chimeric molecule comprising, on a first chain, a first soluble T cell receptor fusion molecule covalently linked to an immunoglobulin heavy chain constant domain or fragment thereof; and, on a second chain covalently linked to the first chain, an immunoglobulin heavy chain or fragment thereof.

Claim 97 (Previously presented): The chimeric molecule of claim 96, wherein the first chain is non-covalently linked to a first kappa constant light chain immunoglobulin domain or fragment thereof.

Claim 98 (Previously presented): The chimeric molecule of claim 97, wherein the second chain is non-covalently linked to a second kappa light chain constant domain or fragment thereof.

Claim 99 (Previously presented): The chimeric molecule of 96, wherein the immunoglobulin heavy chain or fragment of the second chain is covalently linked to a second soluble T cell receptor fusion molecule.

Claim 100 (Previously presented): A chimeric bispecific molecule comprising a first chain and a second chain, wherein the first chain comprises covalently linked in sequence a soluble T cell receptor fusion molecule and an immunoglobulin heavy chain constant domain or fragment; and the second chain comprises an immunoglobulin heavy chain or fragment thereof, the first and second chains being non-covalently linked, respectively, to a first immunoglobulin kappa constant light chain domain or fragment thereof, and a second immunoglobulin kappa constant light chain domain or fragment thereof.

Claim 101 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises a cytokine or a fragment thereof.

Claim 102 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises an IL-2 cytokine or a fragment thereof.

Claim 103 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises an IL-10 cytokine or a fragment thereof.

Claim 104 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises a chemokine or a fragment thereof.

Claim 105 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises a growth factor or a fragment thereof.

Claim 106 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises GCSF or a fragment thereof.

Claim 107 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises GMCSF or a fragment thereof.

Claim 108 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises a protein toxin domain or a fragment thereof.

Claim 109 (Currently amended): A method of preparing a the soluble T cell receptor fusion molecule of claim 81, the method comprising:

providing a T cell receptor chain, or subfragment thereof;
providing a biologically active polypeptide corresponding to a second chain, or subfragment thereof;
connecting the T cell receptor chain and the second chain to a peptide linker; and
recovering the linked T cell receptor fusion polypeptide molecule, thereby generating a T cell receptor fusion molecule.

Claim 110 (Previously presented): A soluble T cell receptor conjugate molecule comprising a plurality of biologically active molecules covalently bound to a carrier, the carrier being covalently bound to a portion of a T cell receptor, wherein the resulting conjugate is soluble.

Claim 111 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the T cell receptor is specific for recognition of a particular antigen.

Claim 112 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the T cell receptor is a heterodimer comprising α and β chain TCR.

Claim 113 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the T cell receptor α and β chains are linked through a non-covalent linkage.

Claim 114 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the T cell receptor is a single chain T cell receptor.

Claim 115 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a cytotoxic molecule.

Claim 116 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a toxin.

Claim 117 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a chemotherapeutic agent.

Claim 118 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is an anti-cancer drug.

Claim 119 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a detectable label.

Claim 120 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a fluorescent compound or an electron transfer agent.

Claim 121 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is an enzyme.

Claim 122 (Previously presented): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a radioactive compound.

Claim 123 (Cancelled).

Claim 124 (Previously presented): A therapeutic composition for treatment of disorders comprising a therapeutically effective amount of the T cell receptor fusion molecule of claim 81 and a sterile, pharmaceutically acceptable carrier vehicle.

Claim 125 (Previously presented): A therapeutic composition for treatment of disorders comprising a therapeutically effective amount of the T cell receptor conjugate molecule of claim 110 and a sterile, pharmaceutically acceptable carrier vehicle.

Claims 126-143 (Cancelled).

Claim 144 (New): A method of preparing the soluble T cell receptor fusion molecule of claim 81, the method comprising:

- providing a T cell receptor chain, or subfragment thereof;
- providing a biologically active polypeptide corresponding to a second chain, or subfragment thereof;
- connecting the T cell receptor chain and the second chain to a peptide linker; and
- recovering the linked T cell receptor fusion polypeptide molecule, thereby generating a T cell receptor fusion molecule.

Claim 145 (New): A method of preparing the soluble T cell receptor conjugate molecule of claim 110 comprising:

reacting a polymer carrier which has covalently bound a plurality of biologically active molecules with a T cell receptor chain; and

reductively stabilizing the resulting conjugate molecule, wherein the resultant conjugate T cell receptor molecule is soluble.